



**INVENTORY
OPTIMIZATION
SOLUTIONS**

MUSC Health Case Study

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– Chris Dwiggin, MUSC Health

About MUSC

MUSC Health, the clinical enterprise of the Medical University of South Carolina (MUSC), is dedicated to the pursuit of changing what’s possible in health care. Nationally recognized for its innovation, patient- and family-centered care, and quality outcomes, MUSC Health sees more than one million patient encounters annually, and its specialized care teams consistently rank among the best in the country. MUSC Health delivers transformational care shaped by world-class clinicians, health scientists, and educators who provide leading-edge care, while developing the next generation of innovative health care leaders.

MUSC Physicians consists of renowned health scientists, educators, and clinicians who provide primary care and the widest range of specialty care available within any health system in South Carolina. MUSC Physicians provides care throughout the Charleston tri-county area, through primary care physician offices and specialty clinics.

The Situation

The business staff at MUSC Physicians manages supply chain processes independent of the hospital and university, specifically addressing the needs of the physician group. Led by Chris Dwiggin, MUSCP purchasing/supply manager, the team has implemented technology to address some of their manual processes and create more automation, particularly in areas related to document management.

“When I joined MUSCP, clinics and primary care were on different systems, yet we were moving to more combined management approach,” said Chris Dwiggin. “I needed to make sure we were all using the same platform and a supply chain system for better standardization and data management.”

Challenges, Goals and Objectives

“We faced a number of challenges as we looked to merge tasks related to supply chain management,” said Dwiggin. “One of the biggest challenges was duplicate processes – we had team members having to take multiple steps, and redundant processes to bridge some of the gaps we had.”

Adding new items was previously a challenge. “We wanted to lock down classifications to ensure consistency as items were added to the system,” said Dwiggin. “We wanted a drop-down menu that allowed team members to select correctly classified items and help us standardize.”

The team was also in need of comprehensive reporting tools, and was looking for a solution that would provide reports that were customizable by user.

“As we got ready to advance our processes, one key goal we set was to standardize items in the system,” said Dwiggin. “This had previously been a challenge for us – we wanted to establish a process that would allow us to standardize items that all the clinics use. Previously, each clinic entered all their own items, and we’d often find 4-5 instances of the same things.”

The Solution

The team at MUSCP decided to update their system to the Envi® supply chain management platform, the current solution from Inventory Optimization Solutions (IOS). Envi offers powerful, modular, web-based features that enable greater automation, visibility to supplies, and standardization of products and vendors, in order to help customers deliver the highest quality patient care. For MUSCP, Envi provides the technology to address identified challenges and goals, and helps the team improve associated supply chain related processes.



Document Management:

"We've recently started using the document attachment feature," said Dwiggin. "This is allowing us to load electronic copies of invoices directly to purchase order records to ensure compliance."

"We're required to keep packing slips or invoices for drugs controlled under Schedules 2-5 of the Controlled Substance Act (CSA) for a minimum of 2 years," Dwiggin continued. "We create a purchase order (PO) and for these types of drugs, when they're received, we can take the packing slip, scan it, and attach it directly to the PO record. We send the packing slip on to end user so they have information for their log. If something goes missing, we can go into the PO record and track the item and receipt, reproducing the packing slip and ensuring our records are in compliance. We have great tracking capabilities."

"We recently had an audit at one location, and while we were able to manually locate the information needed, we wanted to prevent any issues in the future. When we identified the new document attachment feature in Envi, we immediately piloted the feature in our North Charleston facility to get our workflow established. We're completing our due diligence around the overall process and see many benefits of this feature."

Streamlining Processes:

"We've also streamlined steps to make it easier for staff in clinics to place orders," said Dwiggin. "We use requisitions to maintain control over ordering, and Envi helps us simplify this process. Each clinician has a login to the system and can access requisitions, create an order, and then we create purchase orders and submit electronically to vendors. With the visibility built into this process, when we receive items in our facility, we can easily track receipt of the order and directly distribute supplies to the clinics. Then our AP person uses the Envi system and can see exactly what's been received, and match items for faster processing."

"When we receive drugs managed under Schedules 2-5, we scan the packing slip and attach it directly to the PO record. We're ensuring our records are in compliance."

– Chris Dwiggin, MUSC Health

Implementation and Go-Live

"As we've progressed, I've seen the importance of spending time in the Envi training environment. This environment allows a user to try everything first, helping build experience and understanding before you go-live." Dwiggin added, "As you're getting set up, it's a great idea to map out processes. I'd recommend getting your team together with a white board and breaking down your processes into steps. Determine how you want information to flow and map out the data you need for reports. It makes things easy when you set them up correctly."

Outcomes and Results

– Chris Dwiggin, MUSC Health

1. "We've seen a lot of new advancements using the Envi platform from IOS. We needed a system that was robust enough to grow with us, and we benefit from the ongoing enhancements we get with Envi. The expanding functionality continually helps meet more of our needs."
2. "We've made significant progress standardizing items throughout the organization. With Envi, we've identified places where we had multiple instances of the same or similar products and as a result, we've been able to reduce by around 3,500 items."
3. "We know we're in compliance with drugs tracked by Schedules 2-5, which will help us avoid penalties. Penalties can cost as much as \$10,000 per occurrence, and because we're in compliance with documentation, we can avoid the risk of fees in the future."
4. "It's extremely easy to import and export items – the lists in Envi and updates to system are very easy to use."
5. "One of the features that works really well are the confirmations from EDI vendors and the ability to receive invoices electronically. This helps our AP become much more automated and our efficiencies are off the charts from those two features."
6. "It's easy to manage changes to prices, manufacturer numbers or item numbers. As changes happen, we can make system-wide updates. We can make changes in one place and push out to the whole system. One button pushes out to everything."